2012 NCAT Pavement Test Track Pavement Preservation Study

RMW Pavement Preservation Partnership Meeting

October 8, 2013

Mary Robbins

Pavement Preservation

"A program employing a network level, long-term strategy that enhances pavement performance by using an integrated, cost-effective set of practices that extend pavement life, improve safety and meet motorist expectations"

- FHWA Pavement Preservation Expert Task Group

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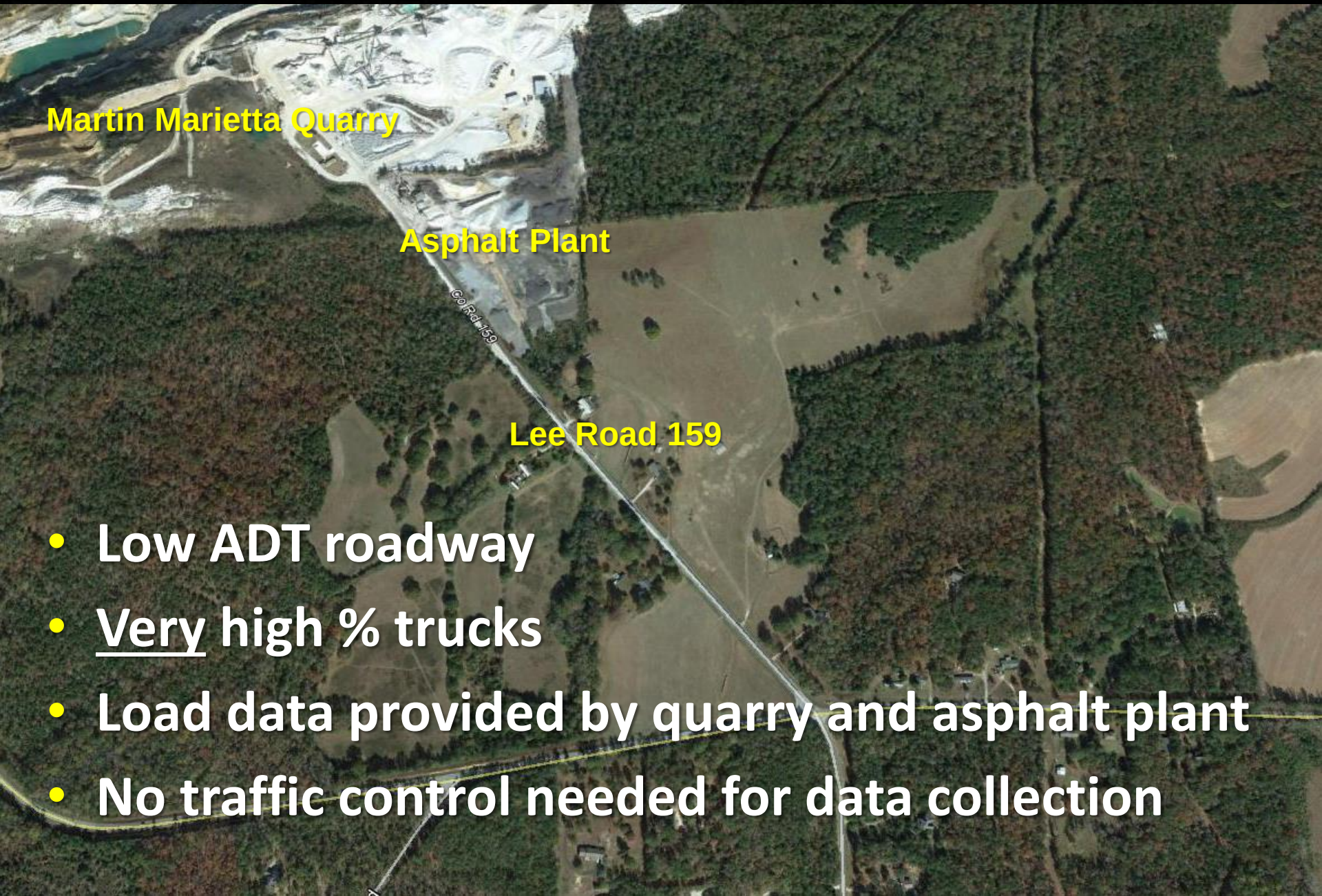
2012 Preservation Group (PG) Study

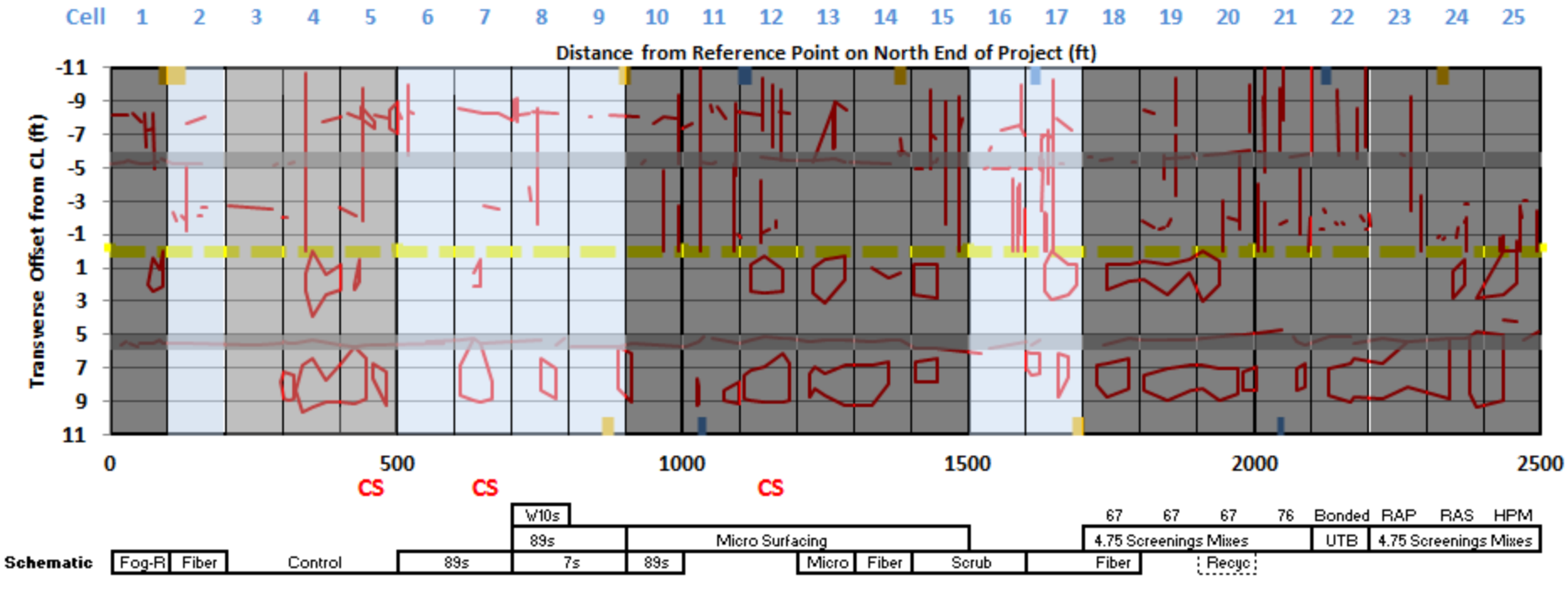
- Quantify life extending benefit of study treatments
  - Time/traffic to return to pretreatment condition(s)
  - Test sections on the Track and Lee Road 159
- Sampling/testing for construction quality

PG Sections on Lee Road 159



- Low ADT roadway
- Very high % trucks
- Load data provided by quarry and asphalt plant
- No traffic control needed for data collection

Final 159 Treatment Layout



- Preventive maintenance
- Routine maintenance
- Minor rehabilitation

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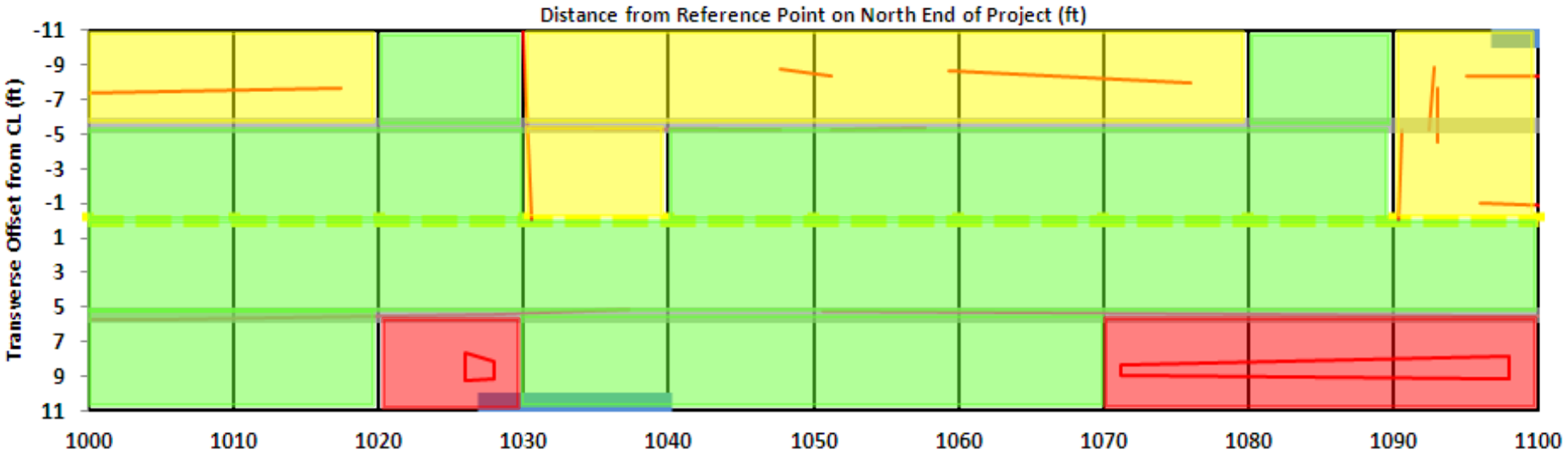
L11 Lee Road 159



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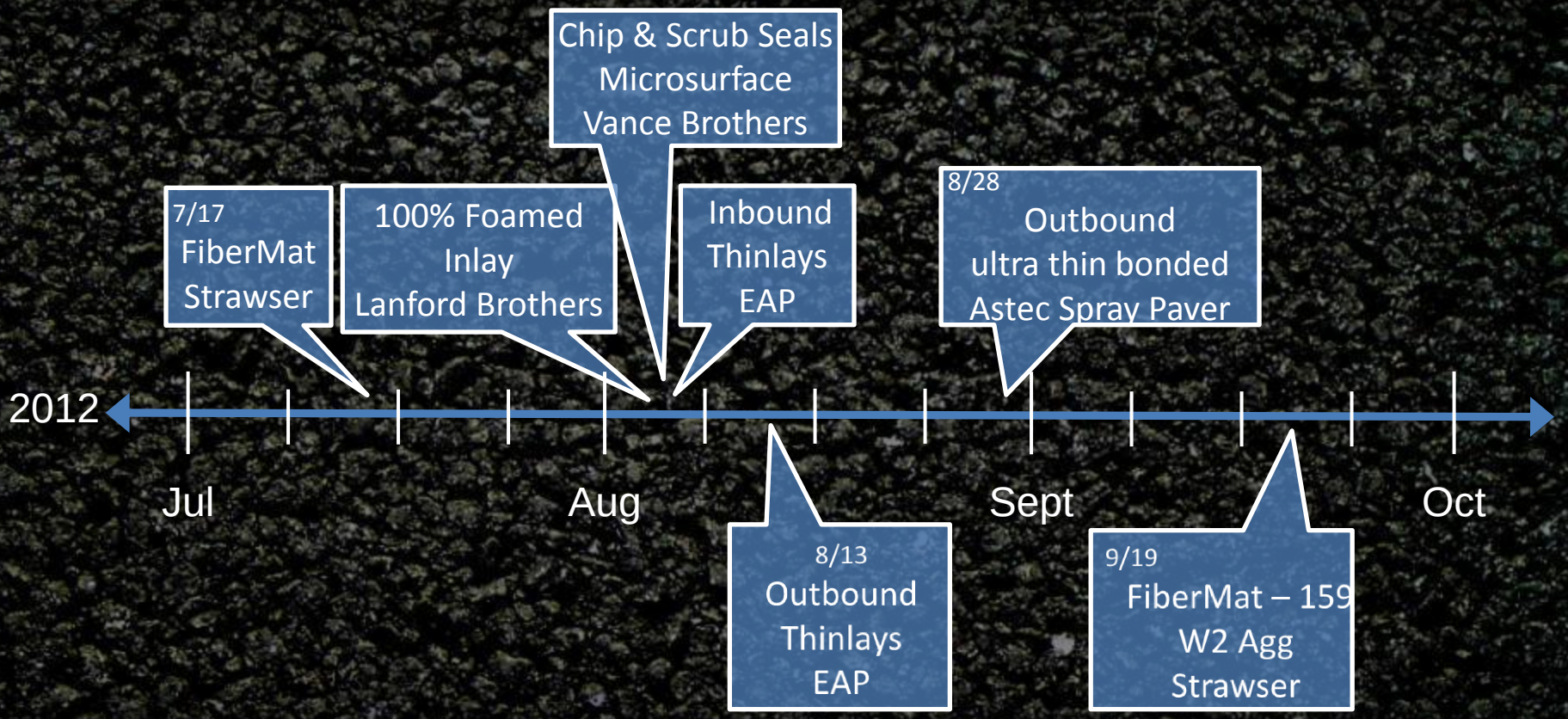
Lee Road 159 Construction



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Rates Checked Prior to Placement

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Actual Rates Verified During Placement

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Lee Road 159
Pavement Preservation Experiment to Reduce the Cost to Maintain Your Roads

Funding Provided by:

Alabama, Mississippi, Missouri, North Carolina, Oklahoma, South Carolina, Tennessee, and FP2 via Auburn University and the Lee County Commission

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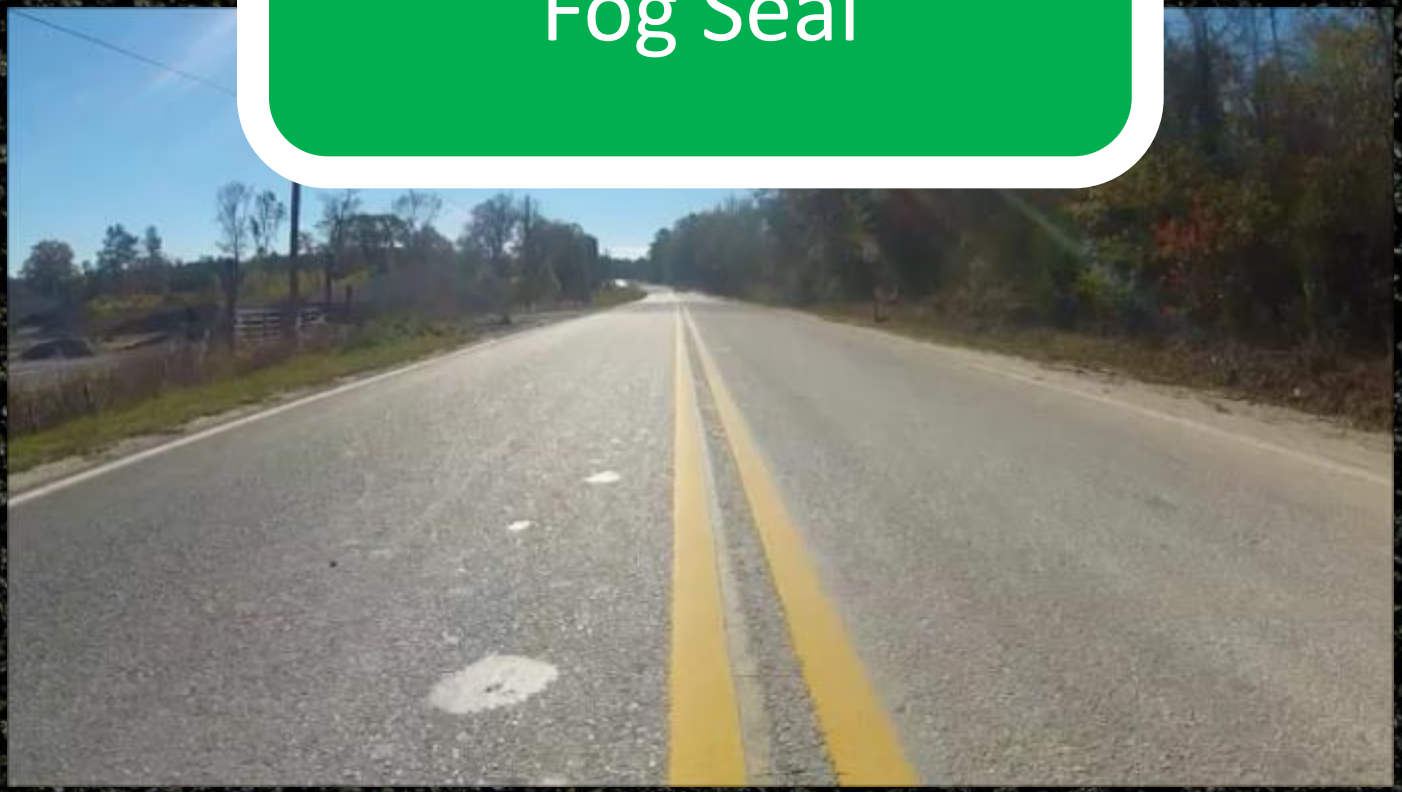
L1 – Rejuvenating Fog Seal



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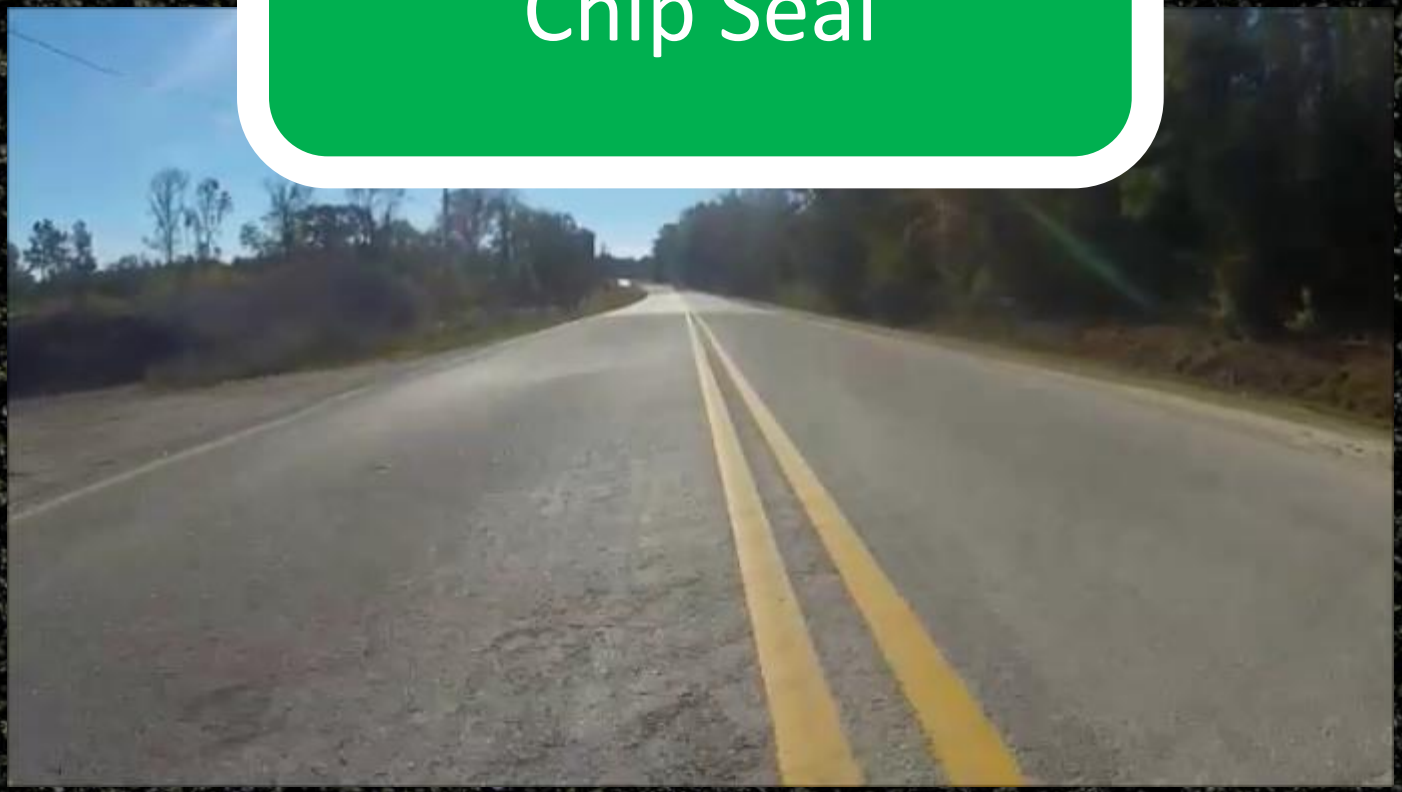
L2 – FiberMat Chip Seal



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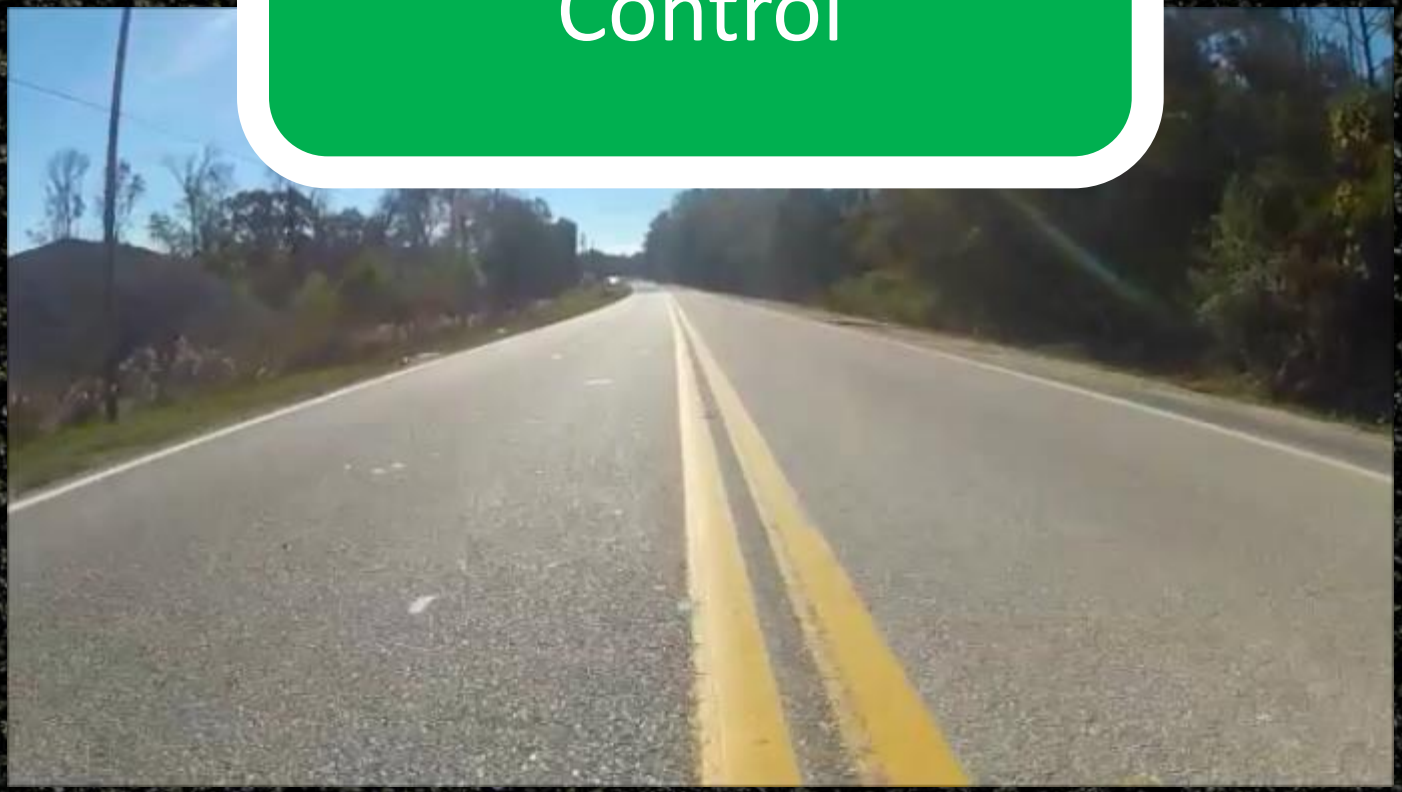
L3 – Untreated Control



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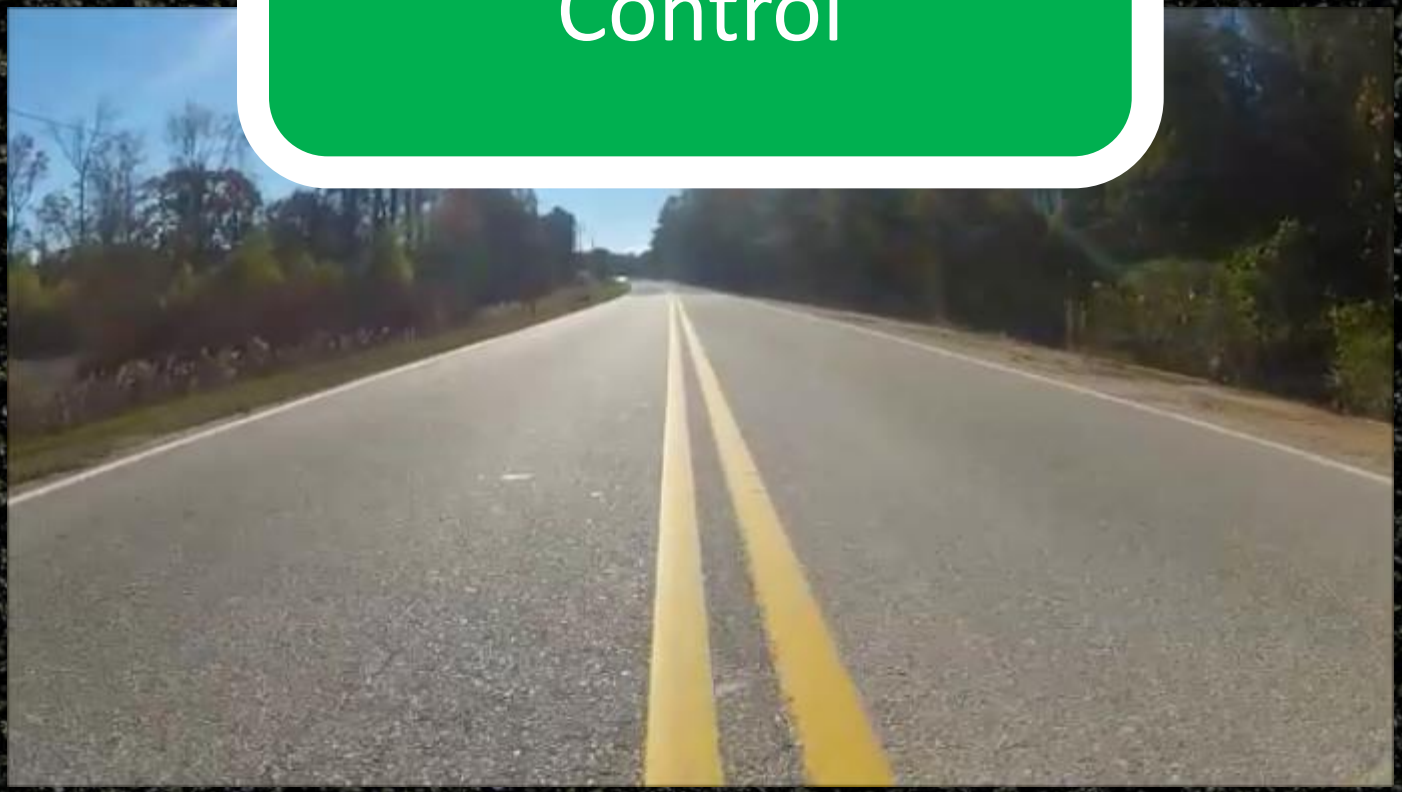
L4 – Untreated Control



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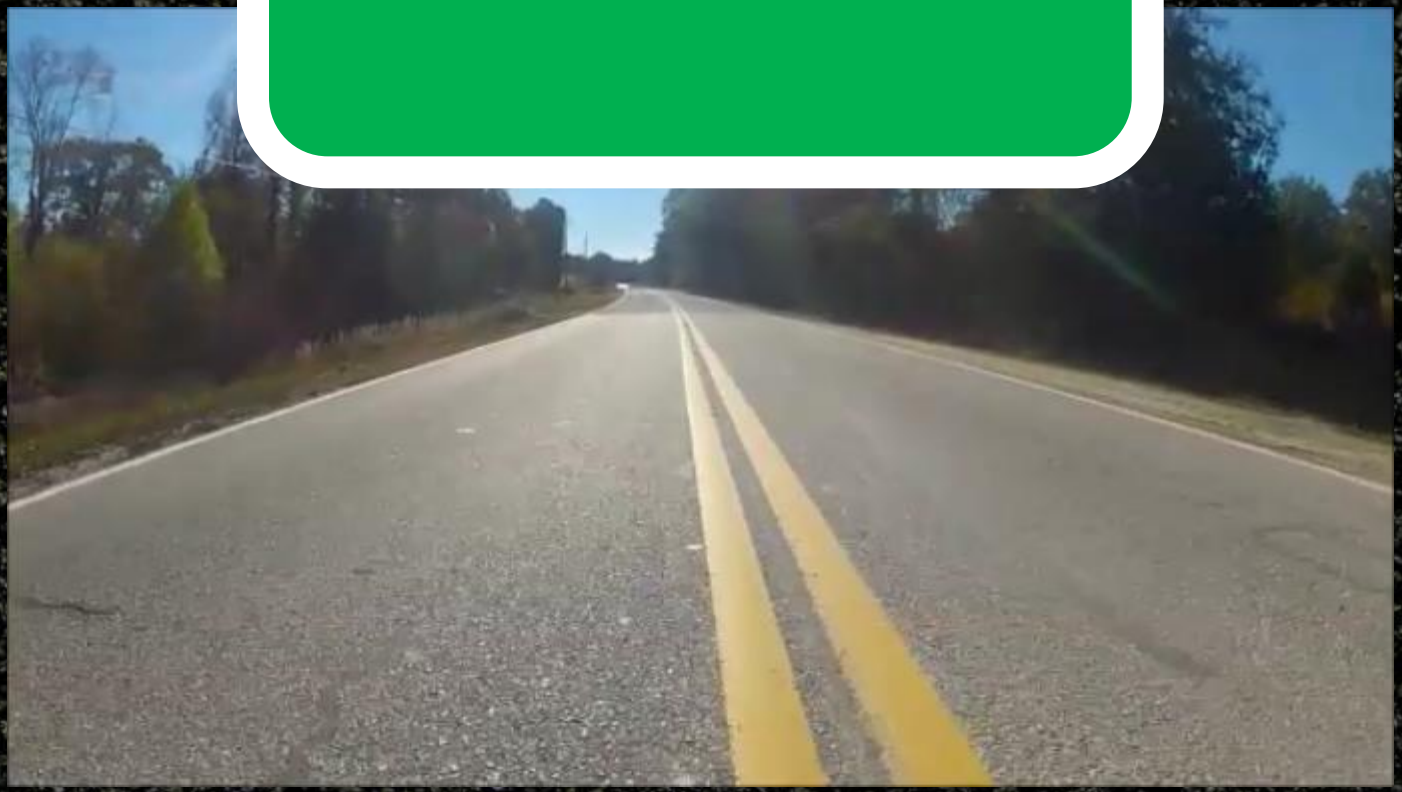
L5 – Crack Sealing



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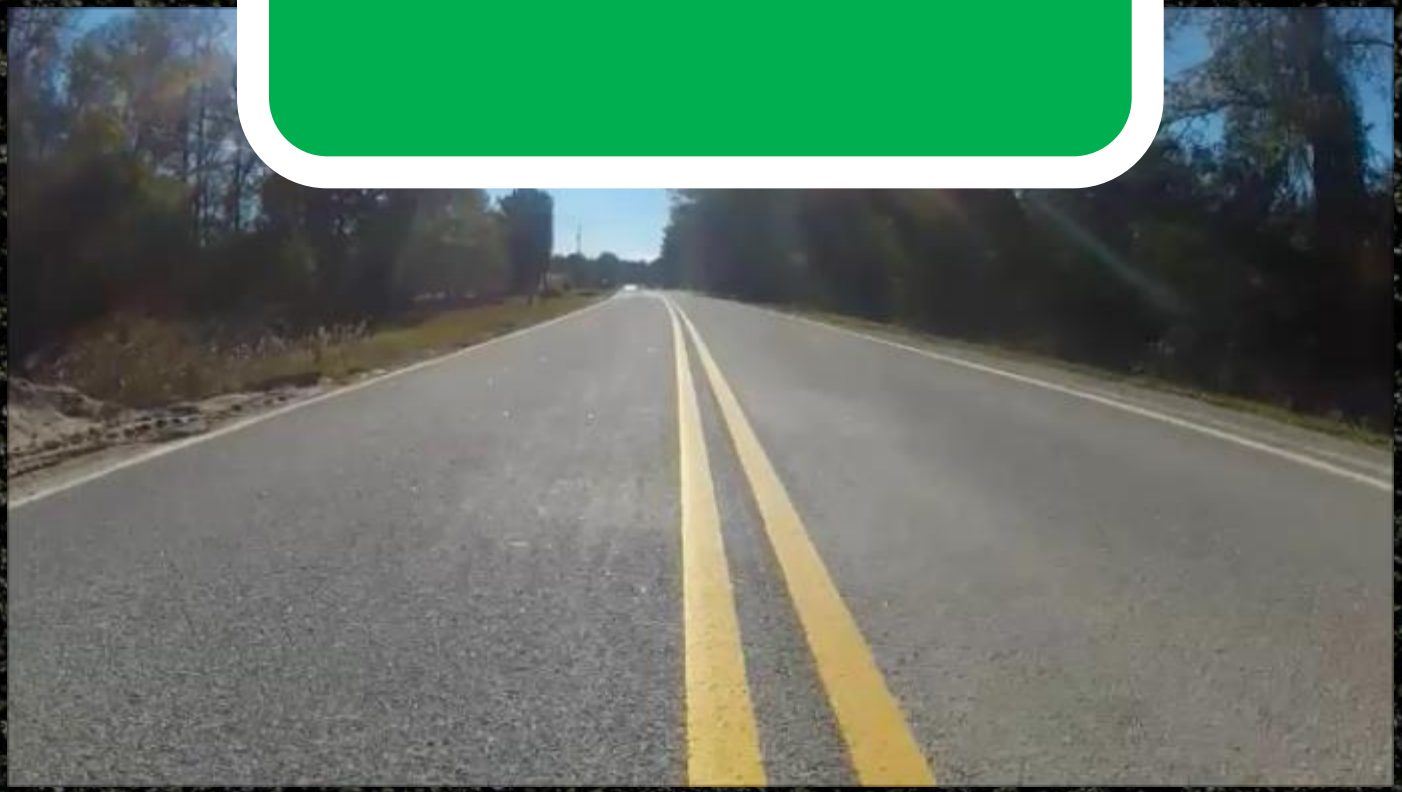
L6 – Chip Seal



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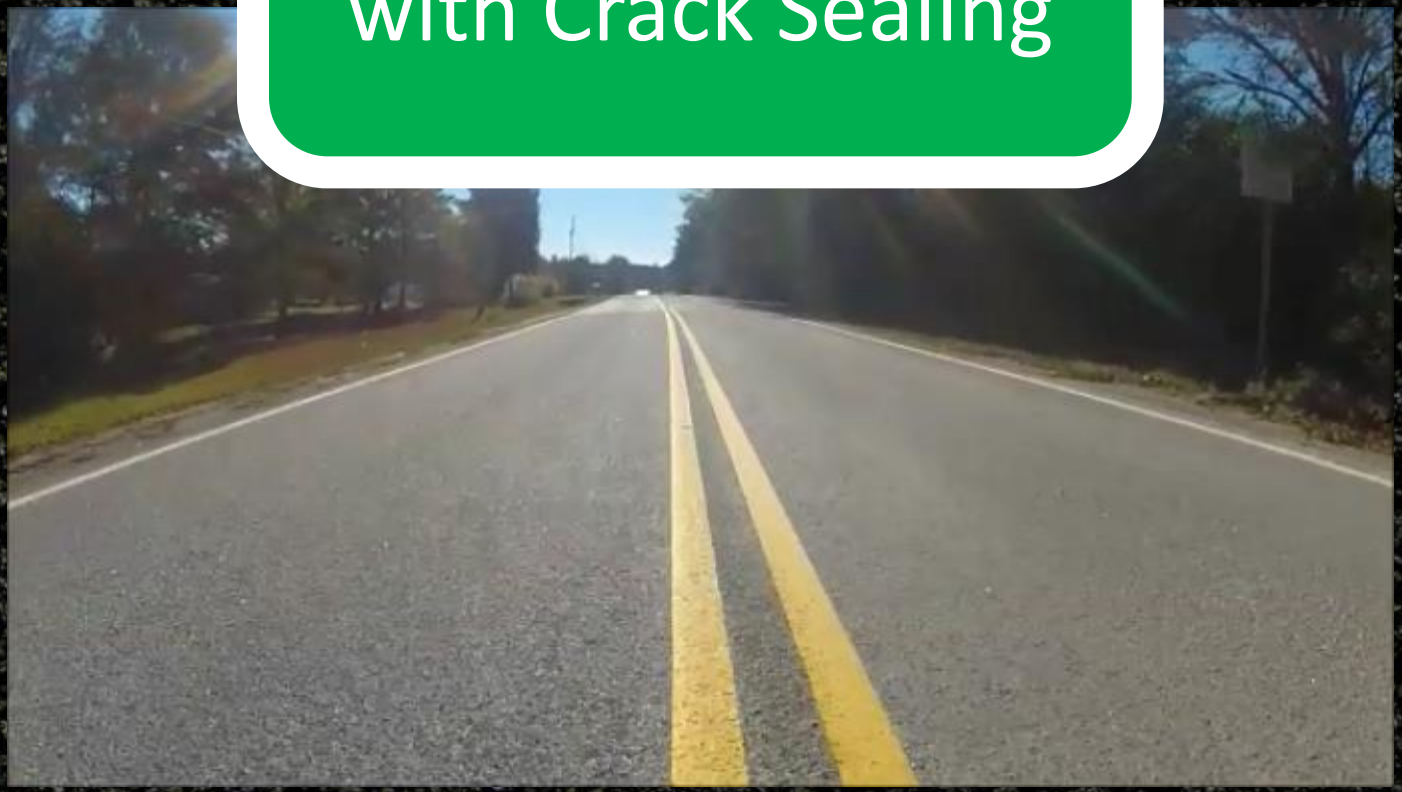
L7 – Chip Seal with Crack Sealing



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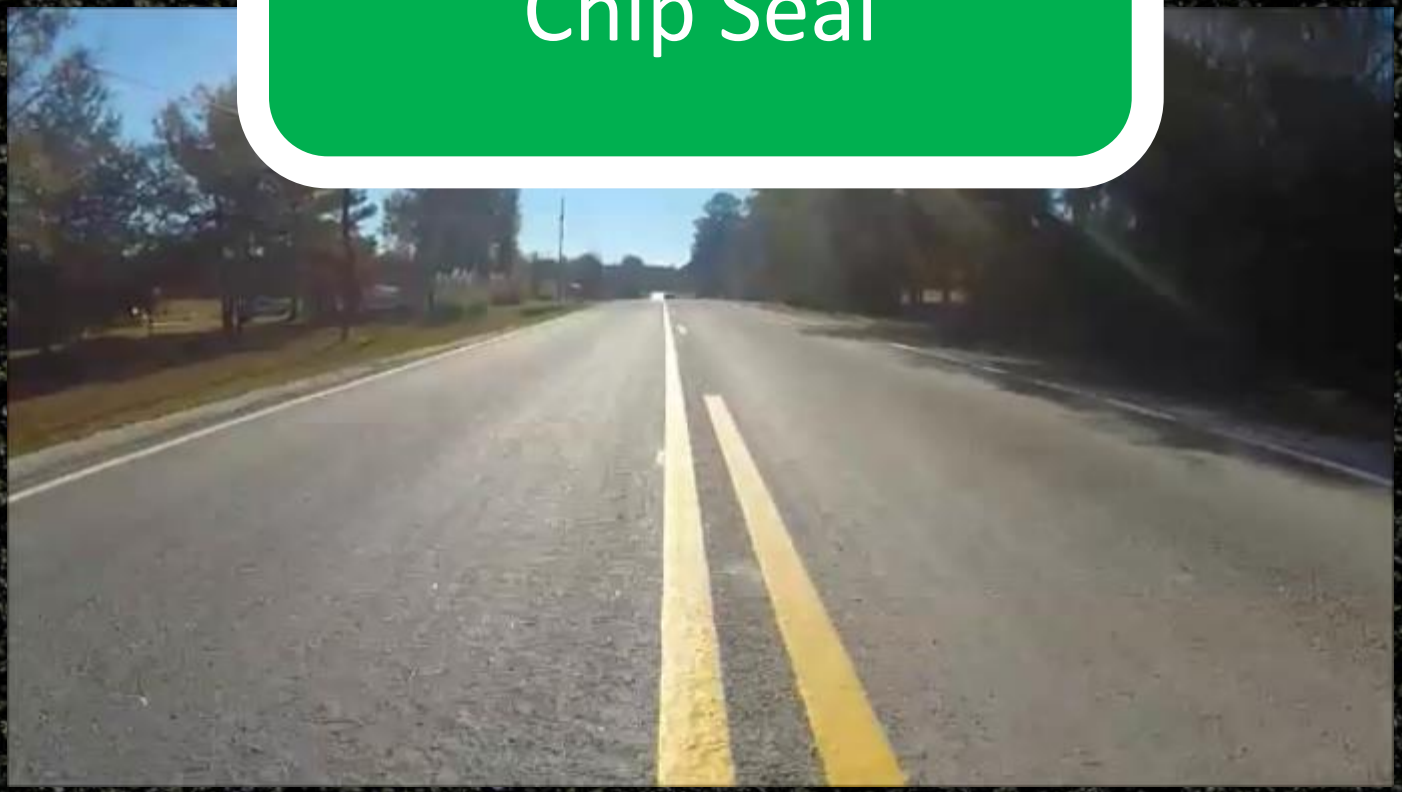
L8 – Triple Layer Chip Seal



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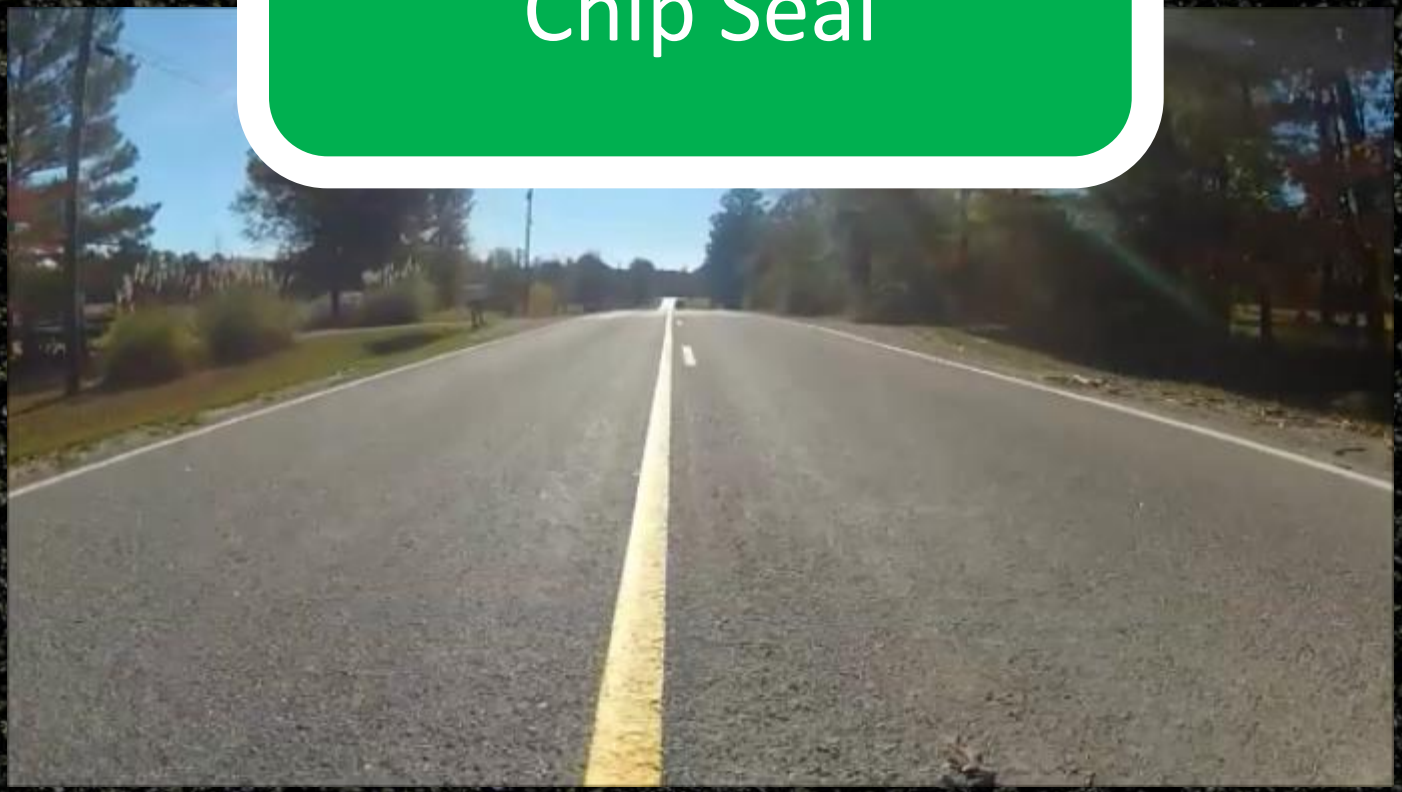
L9 – Double Layer Chip Seal



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L10 – Cape Seal (Micro Surface on Chip Seal)

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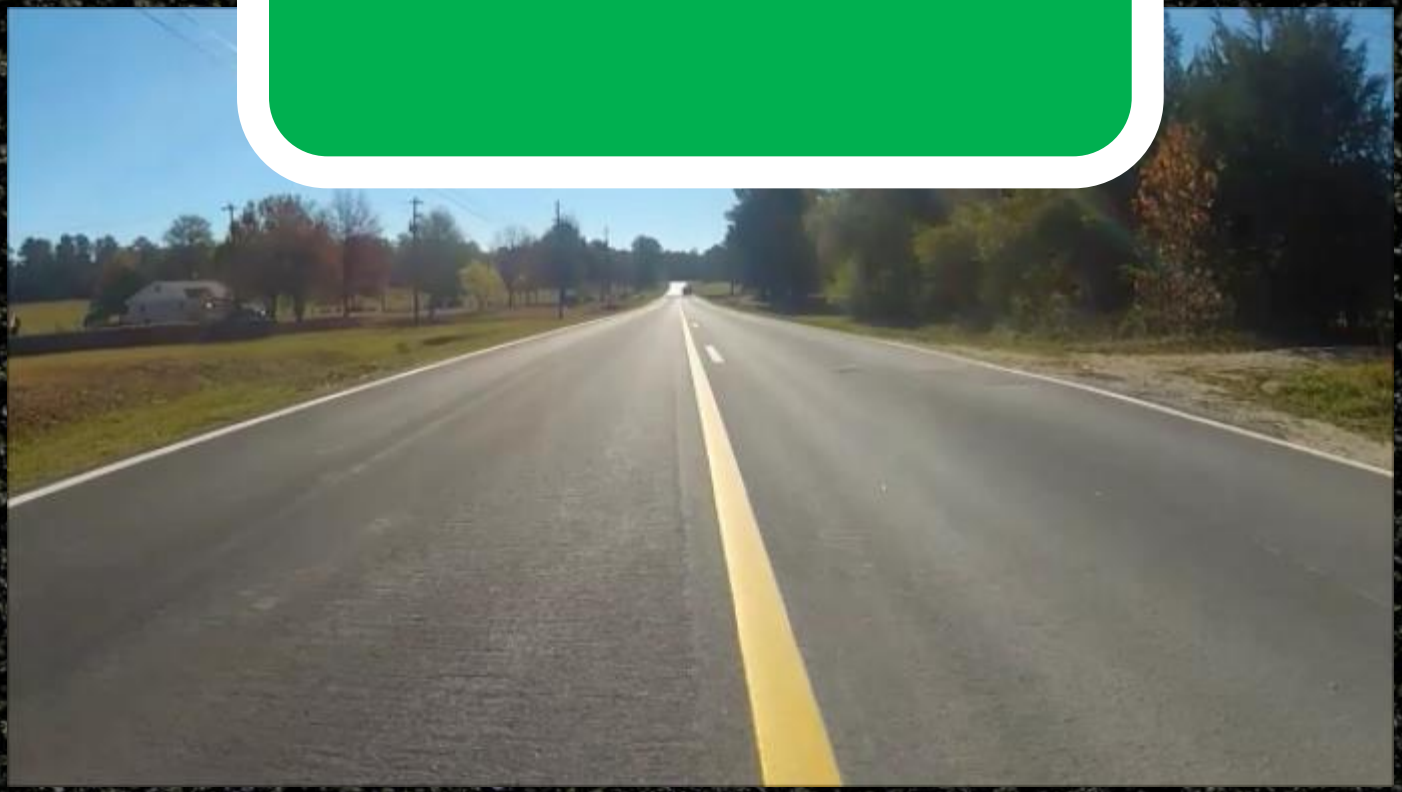
L11 – Micro Surface



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L12 – Micro Surface with Crack Sealing

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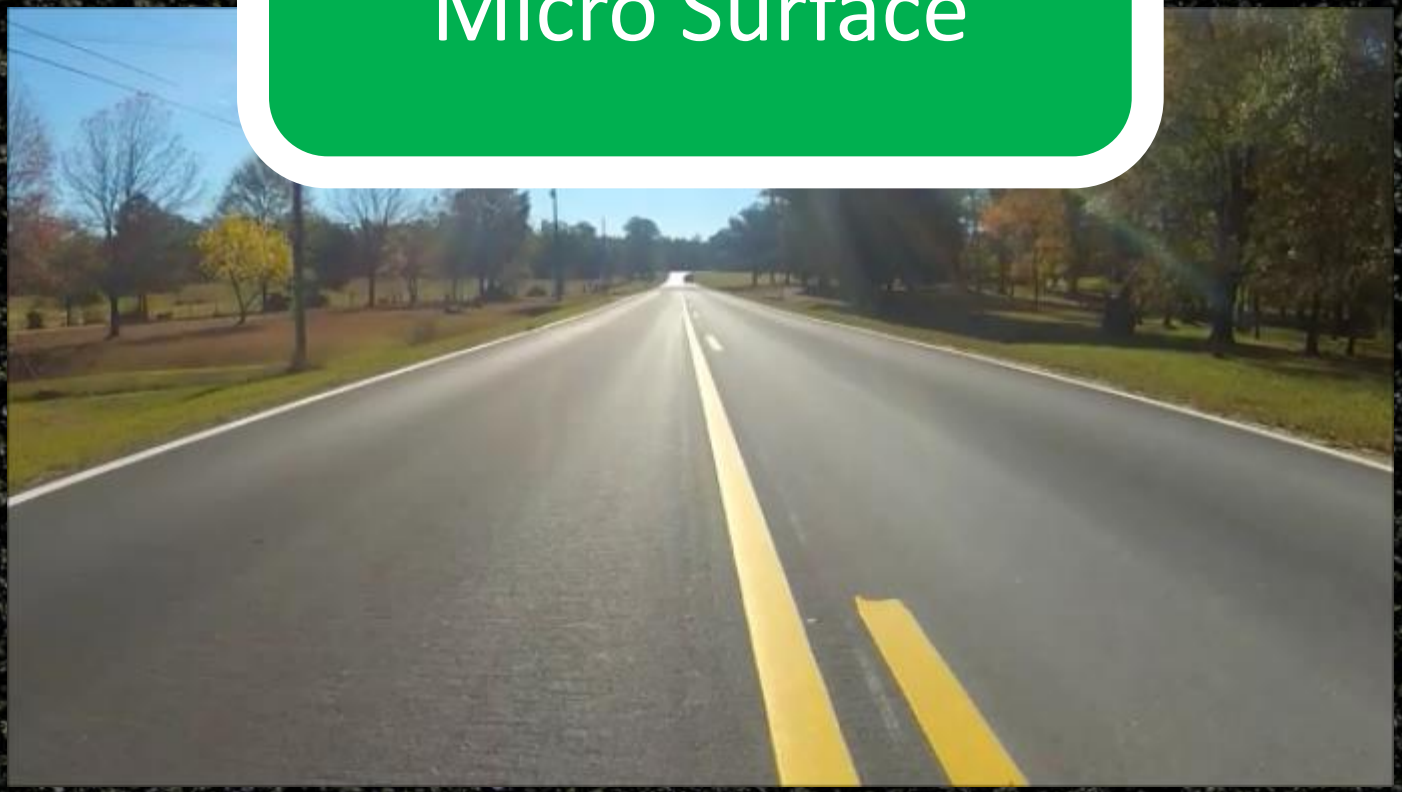
L13 – Double Layer Micro Surface



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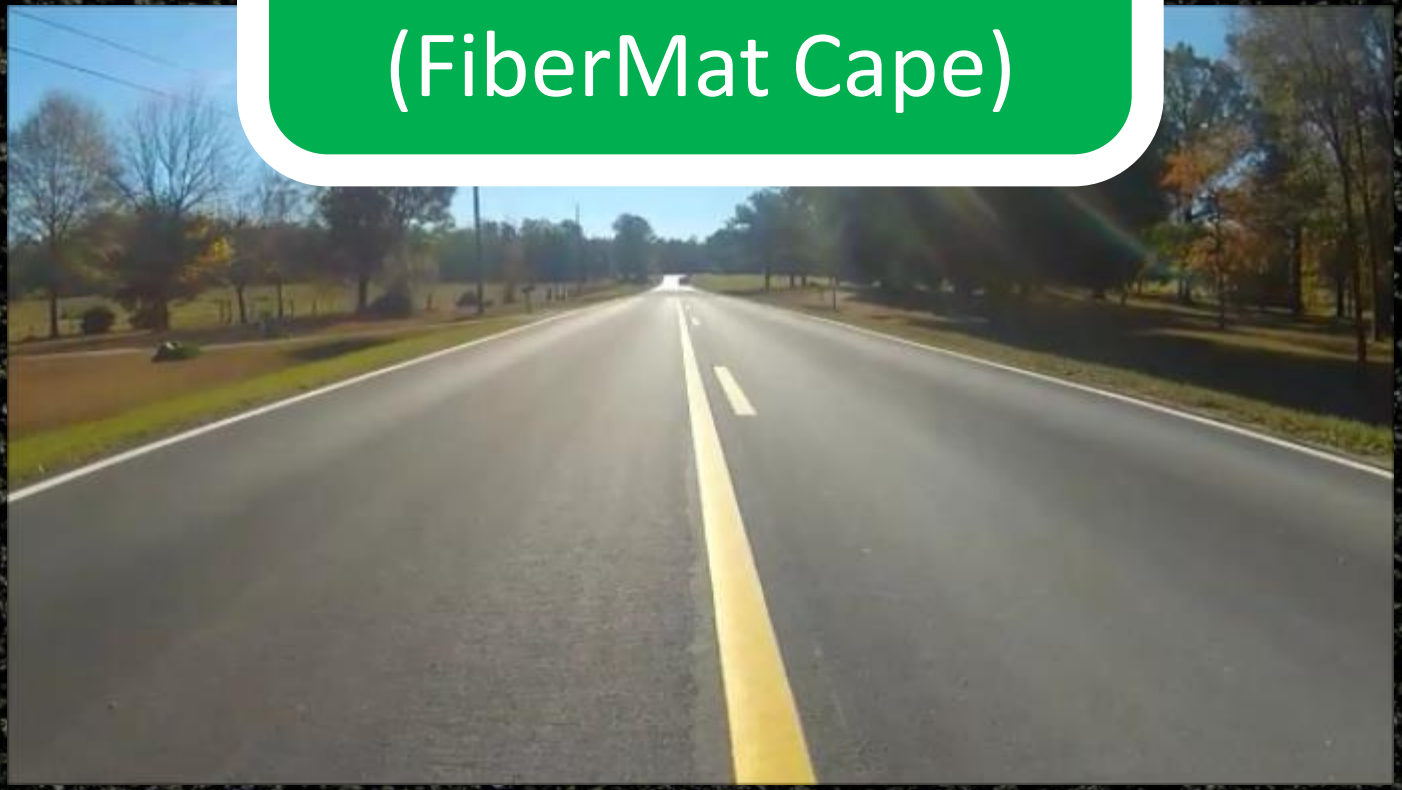
L14 – Micro Surface on FiberMat (FiberMat Cape)



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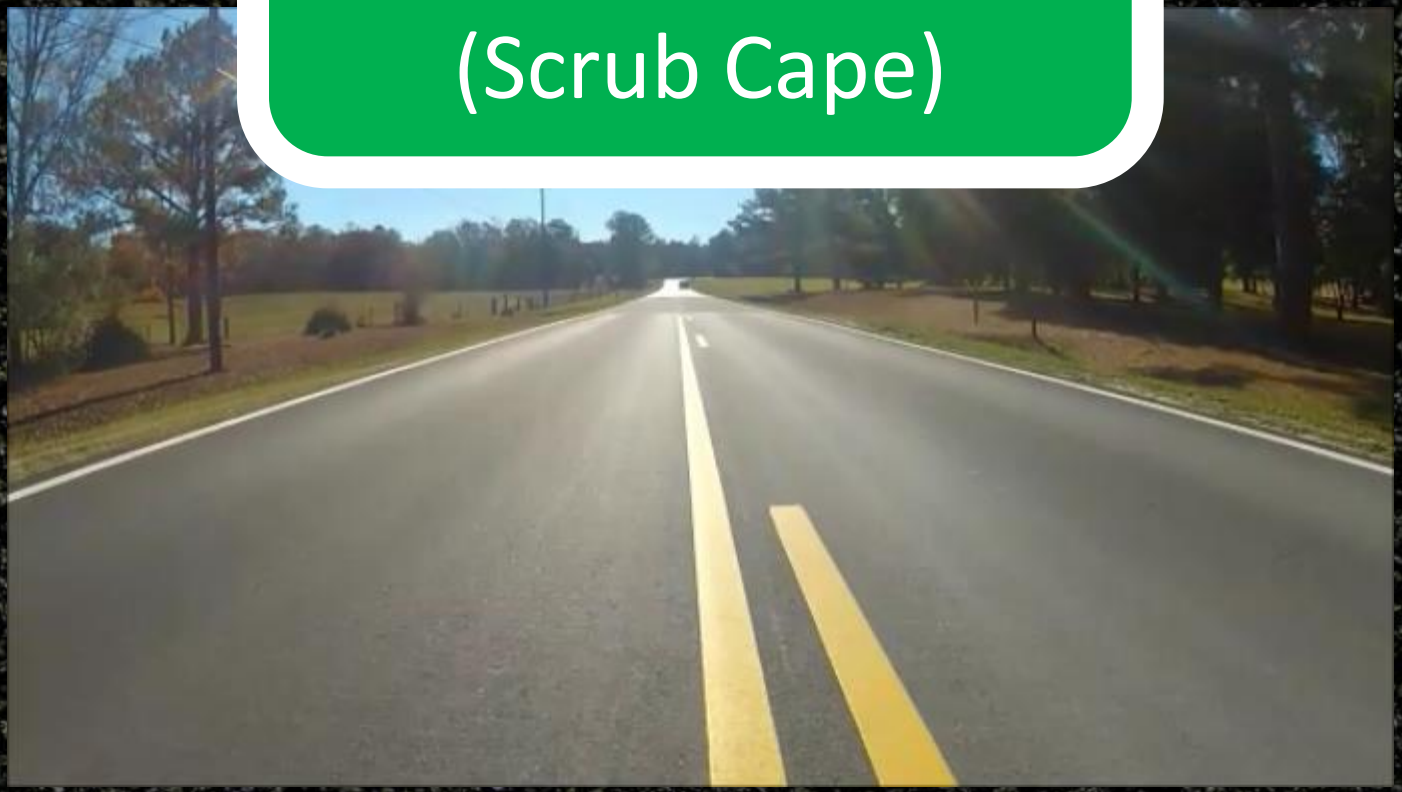
L15 – Micro Surface on Scrub Seal (Scrub Cape)



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L16 – Scrub Seal

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L17 – Subsection Distress Data Demonstration

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L18 – Thin HMA Overlay on FiberMat (HMA Cape)

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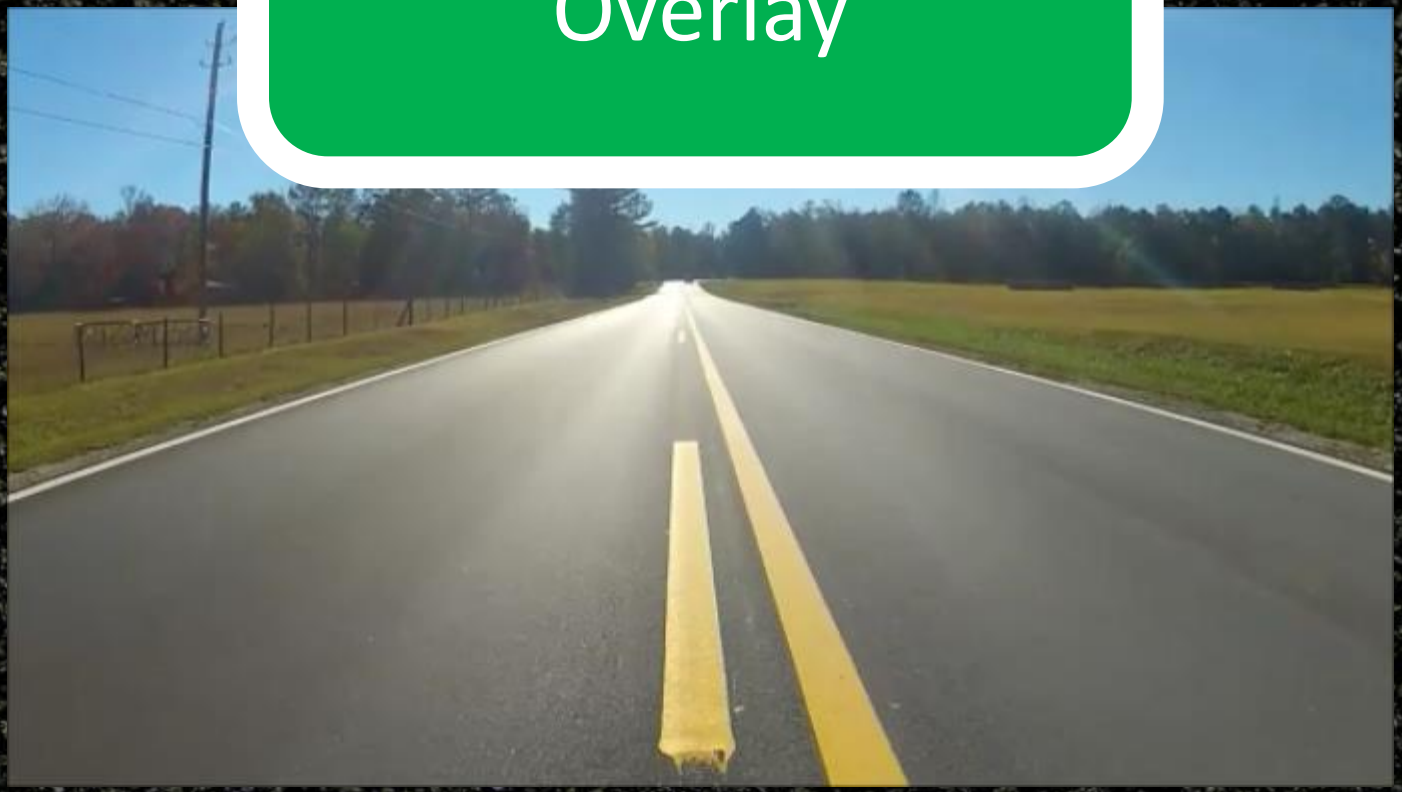
L19 – Thin HMA Overlay



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L20 – Thin HMA Overlay on 100% RAP Mix Base

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L21 – Polymer Thin HMA Overlay

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L22 – Bonded Thin HMA Overlay

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L23 – 50% RAP
Thin HMA Overlay

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L24 – 5% RAS
Thin HMA Overlay

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L25 – HiMA
Thin HMA Overlay

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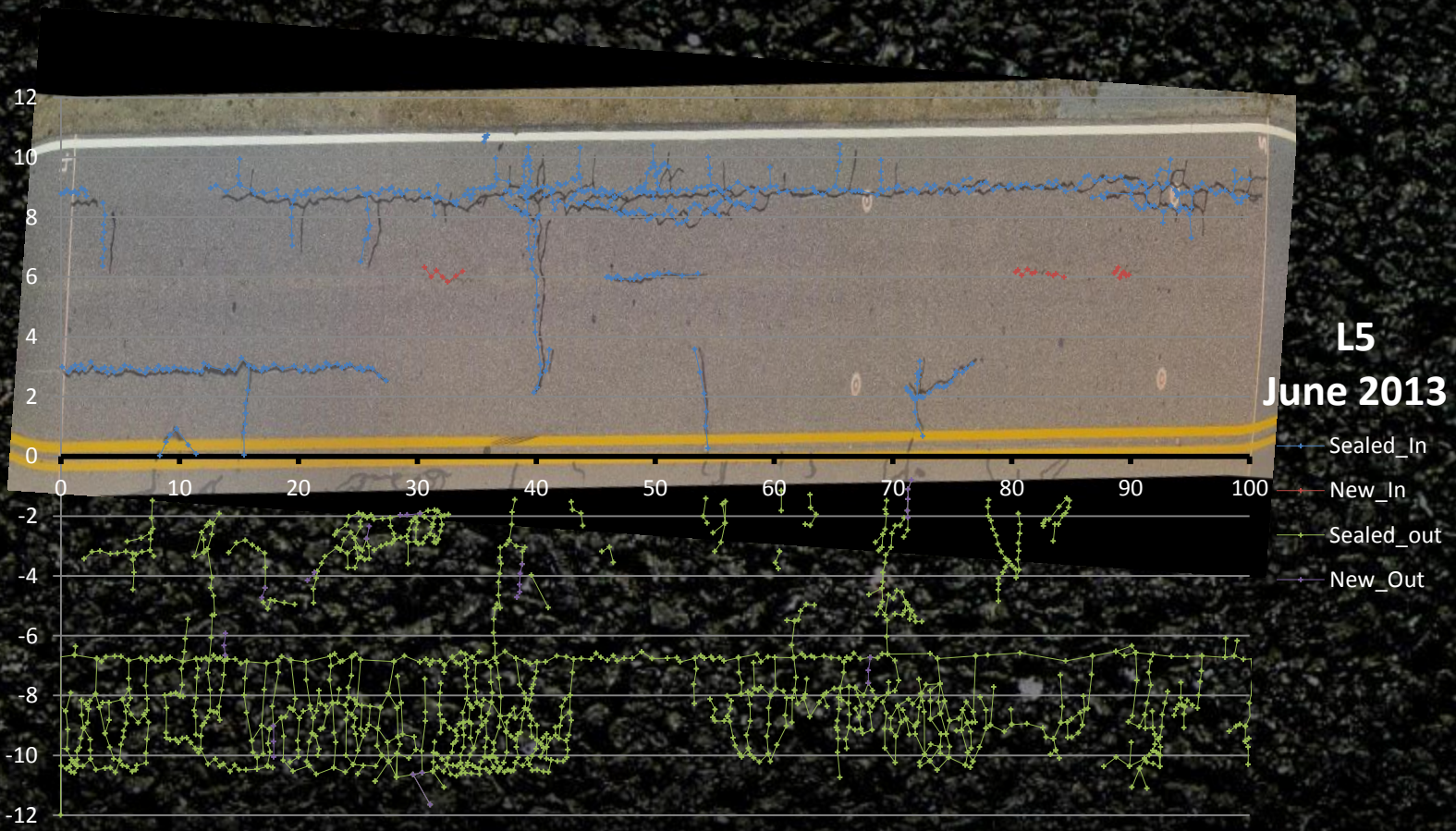
159 Testing Overview

- Weekly
  - ARAN Van (rutting, roughness, texture)
  - Video for crack mapping
  - Visual inspections with notes/pictures
- Monthly
  - Wet ribbed surface friction
  - Subgrade moisture readings
  - Falling weight deflectometer (FWD)
- Other
  - Ground penetration radar (GPR)

Lee 159

Crack Maps



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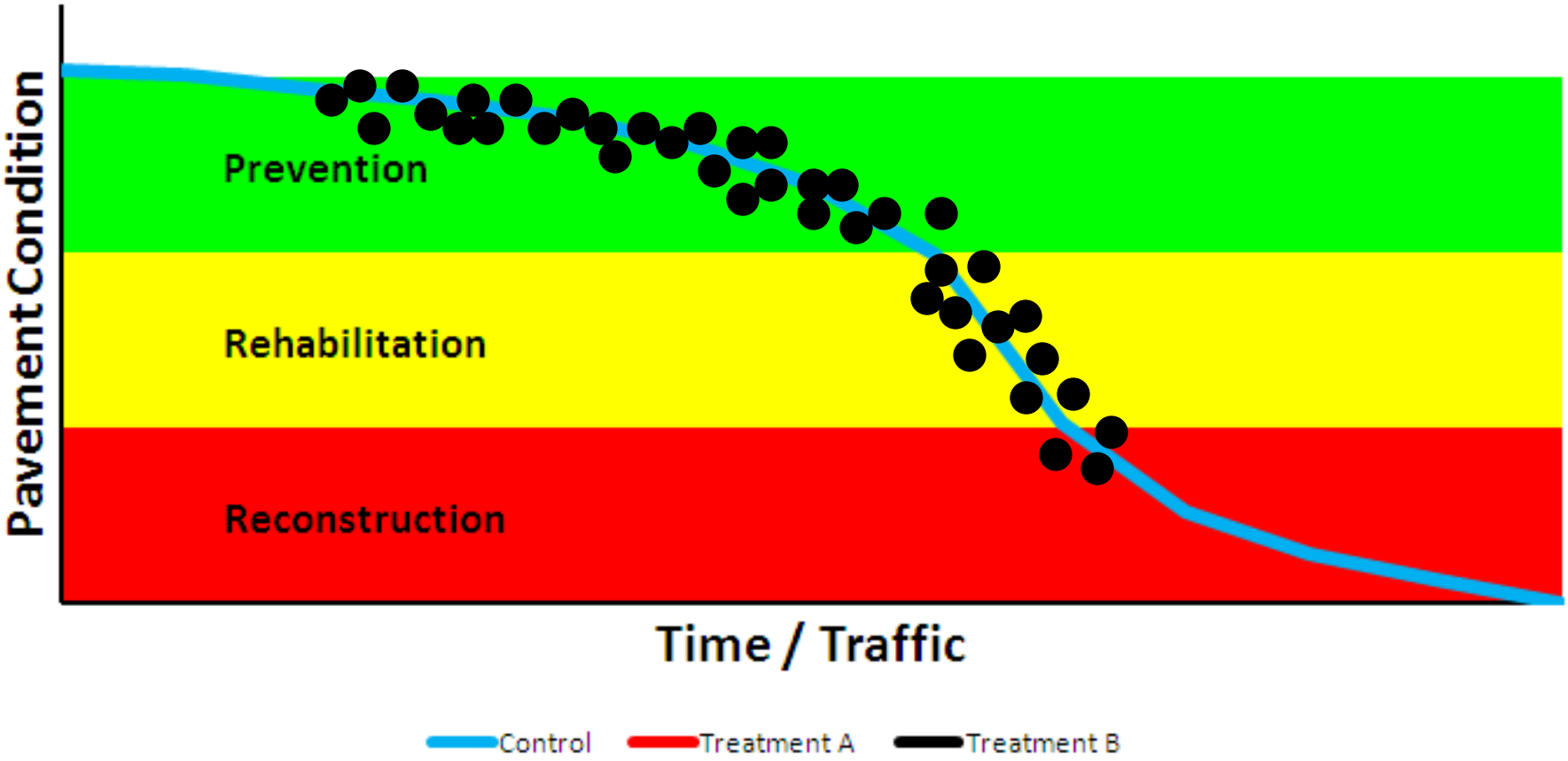
PG Study Implementable Findings



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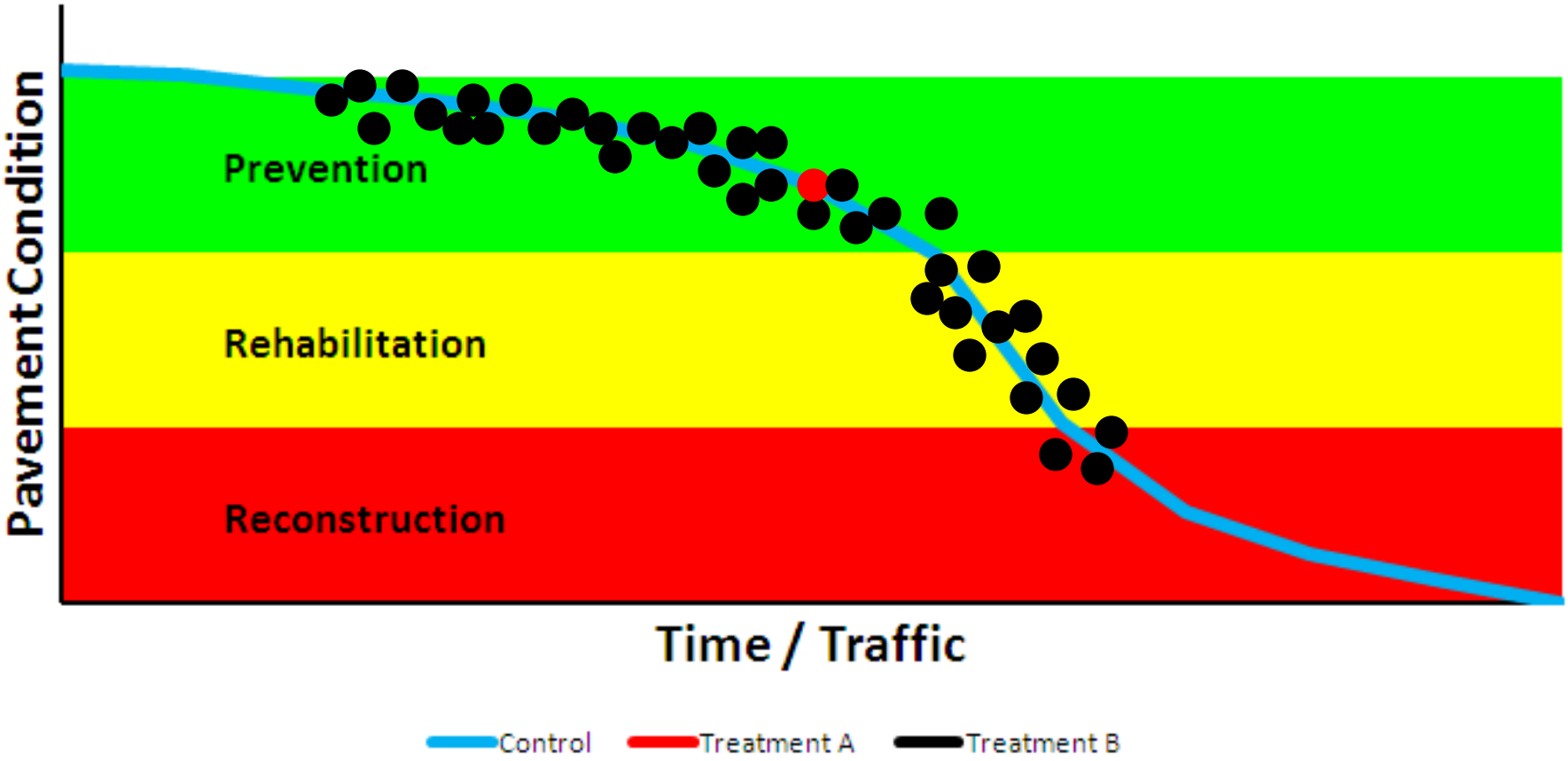

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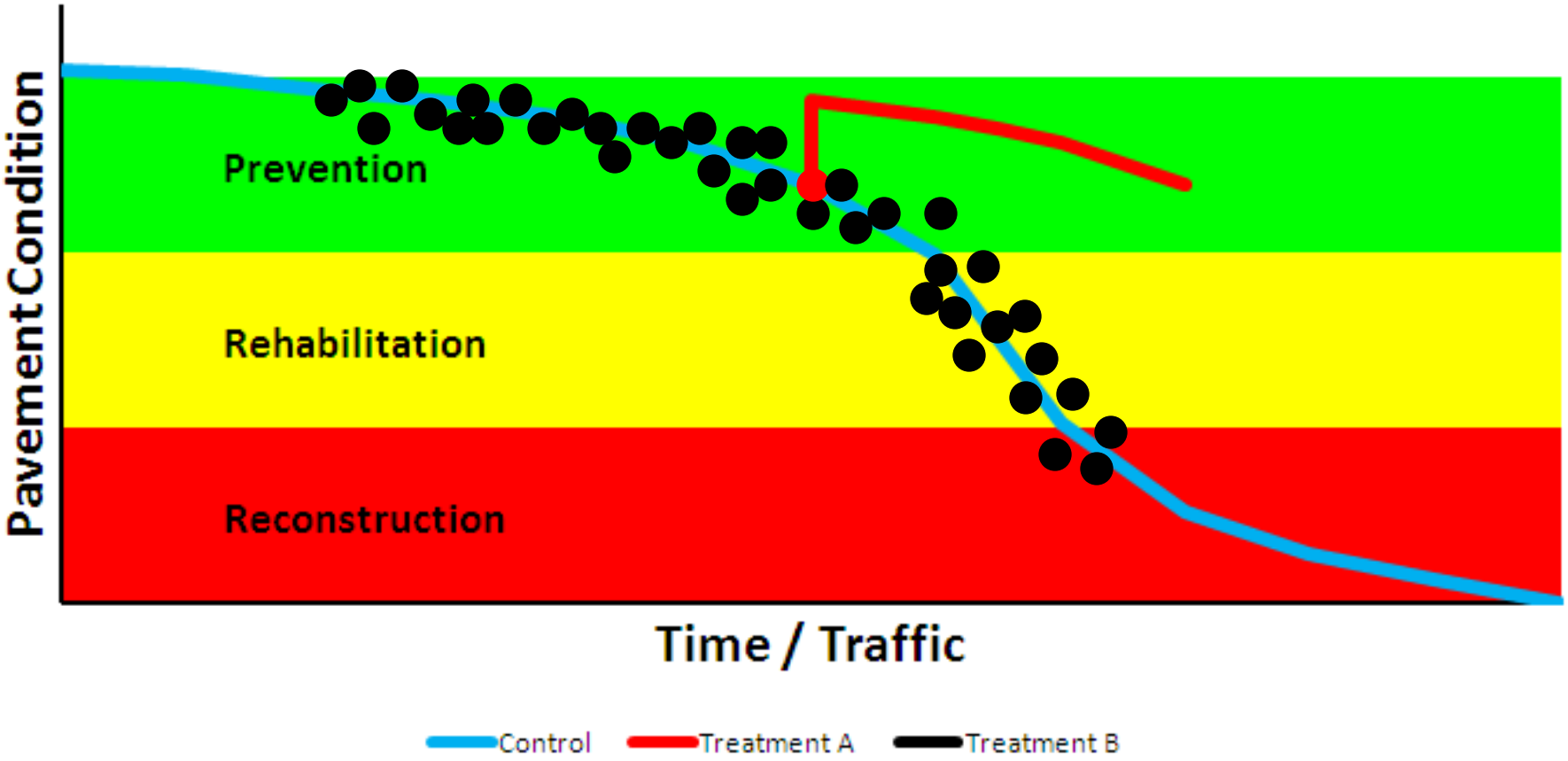

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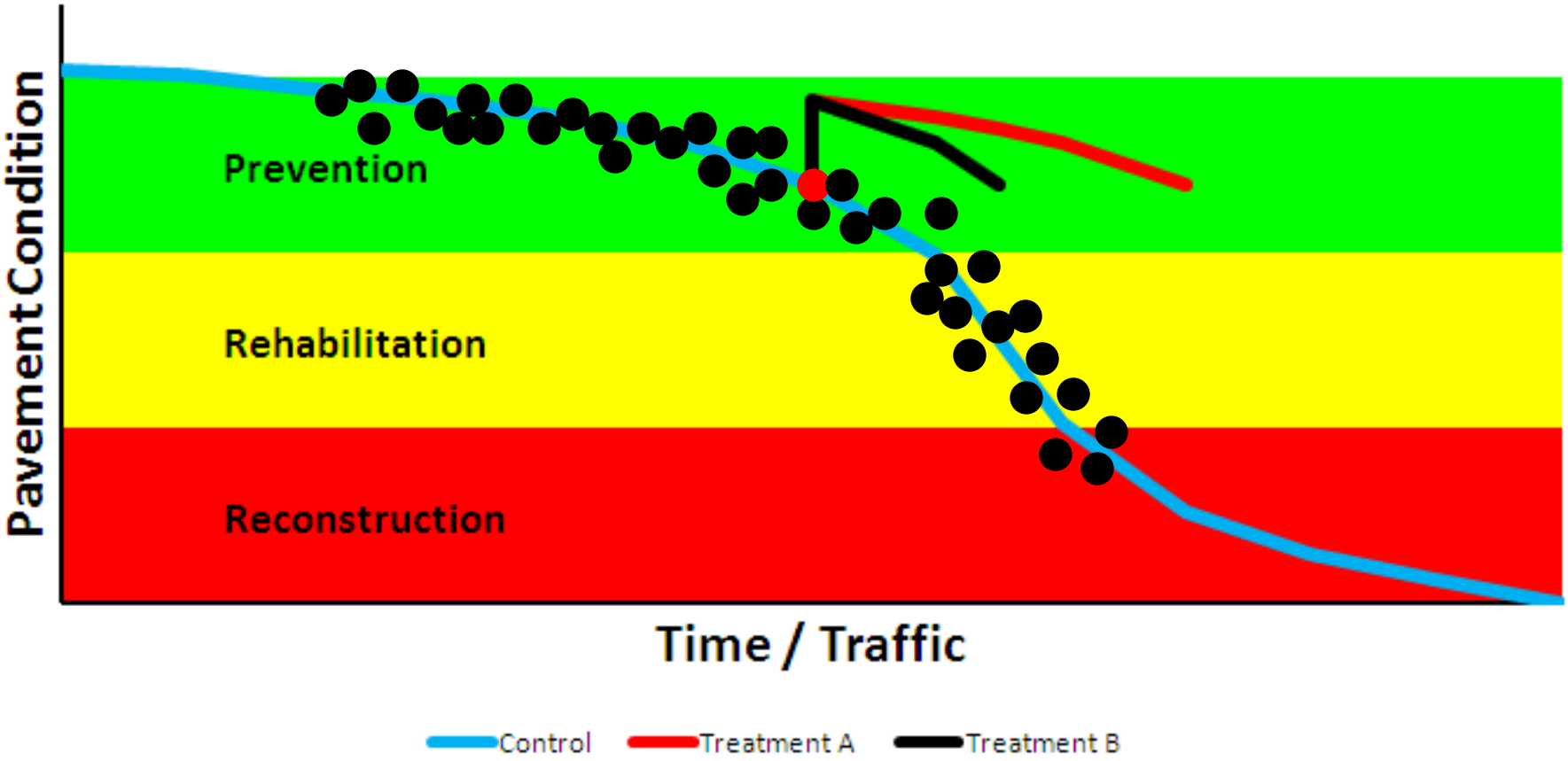

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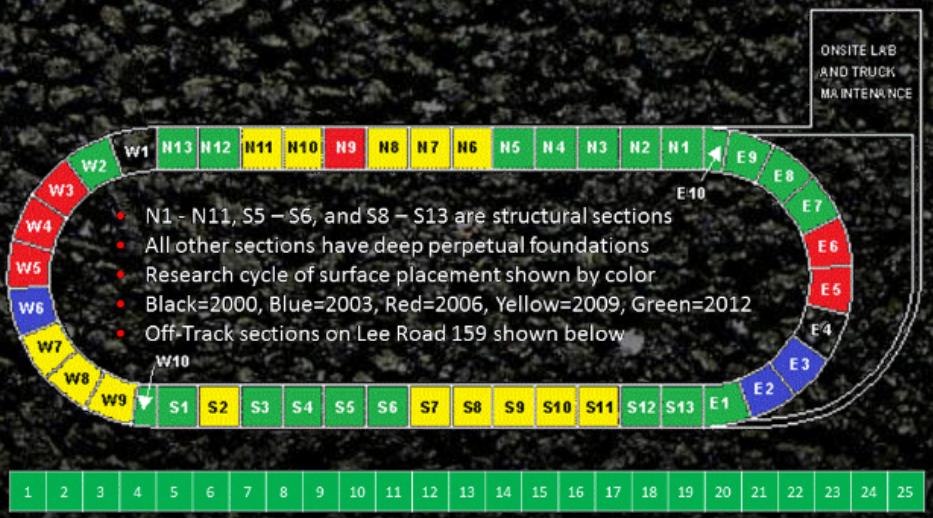
Performance data for each section can be viewed by positioning your mouse over the section in question and left-clicking. Based on feedback from our research sponsors, the performance reports have been revised to include crack maps. The 2009 performance reports are now a fully integrated and active part of the web presentation.



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Questions ?

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